DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: STP-7063(1) Columbia
P. I. No.: 250470
Old Petersburg/Old Evans Road Widening/Reconstruction

OFFICE: Engineering Services

DATE: June 1, 2007

FROM: Brian Summers, P.E., Project Review Engineer BEW

TO: Mohammed "Babs" Abubakari, P.E., State Consult. Design and Prog. Delivery Engineer

SUBJECT: **IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES**

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT No.	Description	Savings PW & LCC	Implement	Comments
6	Use Multi-Use Trail instead of a sidewalk and bike lane	$318,333	No	This is an approved route for Bike Lanes. There could be potential operational problems with a shared use facility with both pedestrians and bicyclists.
9	Reduce Gutter width from 30" to 24"	Design Suggestion	No	Would result in additional drainage requirements due to the increased gutter spread along the roadway.
12	Optimize Pavement Design – evaluate design to reduce the number of layers	Design Suggestion	Yes	This will be done.
13	Retaining Walls: For fill walls – move closer to roadway; delete wall at Sta. 98+60 on Town Center Road	$4,100	No	This wall is needed to minimize parking loss.

ALT No.	Description	Savings PW & LCC	Implement	Comments
14	Delete Noise Barrier	$266,105	No	The Noise Barrier requirement is stipulated in the Environmental Document.
15	Modify material for Noise Barrier	$261,485	No	The Leyland Cypress Trees do not provide the required level of Noise Abatement.
19	Cross RR at grade	$3,186,699	No	The grade separation was part of the original concept to address safety concerns with the at-grade RR crossing.
20	Delete relocation of Lynnwood Avenue	$312,016	No	This concept has been presented to the public at a Public Information Open House.
22	Increase vertical curves to reduce fill	Design Suggestion	No	The vertical curves meet the Design Speed.
23	Use "Con-span" in lieu of bridge at Reed Creek	$200,811	No	The "Con-span" structure cannot pass the required design storm.
24	RR Crossing: reduce center span to utilize Type 4 girder or other design to reduce height of roadway	$332,980	No	The bridge has to span the ditches which are classified as "Waters of the US".
25	Wyngate Tributary: use equivalent pipe size or "Con-span"	$44,325	No	The "Con-span" structure cannot pass the required design storm.
26	Use HDPE or Corrugated Smooth Wall HDPE Storm Drain Pipe	Design Suggestion	Yes	This will be done.
28	Utilize surface drainage where possible (north side)	Design Suggestion	No	This is an "urban" type project.

ALT No.	Description	Savings PW & LCC	Implement	Comments
29	Slope pavement to median, single storm water collector	Design Suggestion	No	Would result in additional drainage structures in the median.
31	Eliminate sidewalks on side streets	$34,421	Yes	This will be done.
32	Re-route non-local traffic	Design Suggestion	Yes	This will be done.

A meeting was held on March 27, 2007 to discuss the above recommendations. Kerry Williams with Earth Tech, Joe Wheeler and Nicoe Alexander with Consultant Design, and Brian Summers, Lisa Myers, and Ron Wishon of the Office of Engineering Services were in attendance.

Additional information was provided by the Project Manager/Design Consultant on 3/27/07 and 6/1/07.

The above reflects the consensus of this meeting.

Approved: _____ **Date:** 6/1/07
David E. Studstill, P. E., Chief Engineer

BKS/REW

Attachments

c: Gus Shanine, FHWA
Todd Long
Joe Wheeler
Nicoe Alexander
Clayton Bennett
Richard Marshall
Paul Alimia
Jimmy Smith
Nabil Raad
Vo Nguyen
Lisa Myers

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP-7063(1) Columbia County
Old Petersburg Road/Old Evans Road from
Washington Road to Baston Road
P.I. Number 250470

OFFICE Atlanta, Georgia

DATE March 8, 2007

FROM Mohammed (Babs) Abubakari, P. E., State Consultant Design Engineer

TO Brian Summers, P. E., Project Review Engineer

SUBJECT **Responses to Value Engineering Study Final Report**

Attached for your use and further handling are the responses to the recommendations in the Value Engineering Study Final Report for the above referenced project.

If you have any questions, contact Joe Wheeler at (404)657-9759.

MBA:JDW
Attachment

cc: Earth Tech, Attn.: Kerry Williams

EarthTech
A tyco International Ltd. Company

1455 Old Alabama Road
Suite 170
Roswell, GA 30076

P 770.990.1400
F 770.649.8721
earthtech.com

March 2, 2007

Ms. Lisa Myers
Design Review Engineer Manager
Georgia Department of Transportation
No. 2 Capitol Square, Room 266
Atlanta, GA 30334

Subject: Value Engineering Responses
Riverwatch Parkway (Old Petersburg Road) Widening
Project No. STP-7063(1), P.I. No. 250470
Columbia County

Dear Ms. Myers:

Please find enclosed the responses to the Value Engineering Report for project number STP-7063(1) referenced above.

The Value Engineering Study was held January 22nd through January 25th at which time 32 alternative ideas were proposed of which 10 were recommended for incorporation into the plans. The VE team also recommended six ideas for the design team to consider in the final design.

The design team met on February 28th to review the recommendations made by the VE Study team. Enclosed you will find the design teams recommendations for the 10 recommended ideas for incorporation into the plans and our responses for the six design changes recommended by the VE Study team.

Very truly yours,

Kerry B. Williams

Kerry B. Williams, P.E.
Project Manager

Recommended Alternative: Use multi-use trail instead of a side walk and bike lane.
Response: This route is an approved route for bike lanes. A multi-use trail located adjacent to the roadway has several operational problems that are listed in AASHTO's Guide of the Development of Bicycle Facilities.

Design Suggestion: Reduce gutter from 30 inch to 24 inch.
Response: Reducing the gutter from 30 inch to 24 inch will possibly increase the gutter spread along the roadway. Therefore this design suggestion will not be incorporated into the plans.

Design Suggestion: Optimize Pavement Design – Evaluate design to reduce the number of layers.
Response: The final pavement design will be determined by the pavement design committee. Our proposed design will minimize the number of layers but approval will be determined by the pavement design committee.

Recommended Alternative: Retaining Walls: For fill walls – move closer to roadway; Delete wall at station 98+60 Town Center Road.
Response: No easement would be saved by moving the wall or removing the wall at station 98+60 Town Center Road.

Recommended Alternative: Eliminate the noise barrier
Response: The installation of noise barriers is specified in the environmental document, therefore they cannot be removed.

Recommended Alternative: Modify material for noise barrier
Response: The installation and the type of noise barrier is specified in the environmental document and cannot be changed.

Recommended Alternative: Disconnect Industrial Blvd. from Parkway Overpass; or route connection to be at existing grade at either the east or west end of the overpass.
Response: Part of the project concept is to create a grade separation at the railroad crossing. CSX has multiple trains along this line daily which would result in substantial delays for users of the roadway without the grade separation.

Recommended Alternative: Cross RR at Grade
Response: Part of the concept for this project is to create a grade separation at the railroad. This rail line has multiple trains daily. The grade separation will improve roadway operations and provide increased safety as compared to an at-grade crossing.

Recommended Alternative: Delete relocation of Lynnwood Avenue.
Response: The relocation of Lynwood Drive was made part of the original concept in order to provide motorists with full access to a median opening. The existing Lynwood Drive intersection is too close to the Stephens Road intersection to provide a median opening without violating Department policy. The decision to relocate

Lynwood Drive was somewhat non-engineering in nature in that it provides direct access for people attending the Martinez Baptist Church.

Design Suggestion: Increase vertical curves to reduce fill.
Response: The maximum grade for this project is listed as 7 percent in the concept report. However for this area the highest grade that has been used in the design is 4.5 percent. Increasing the vertical curves will increase our grade over this limit. This would also require significant changes to the plans increasing the design cost.

Recommended Alternative: Use "Con-span" in lieu of bridge at Reed Creek Crossing.
Response: The use of Con-span will need to be verified with the Bridge Design Office and a hydraulic study will need to be done to ensure that a Con-span crossing can accommodate the required design storms. This will be studied in further detail.

Recommended Alternative: RR Crossing: reduce center span to utilize Type 4 girder or other design to reduce height of roadway.
Response: The Type 4 girder has a shorter span than the girders being used. The longer girder was required to span the ditches located along the railroad track. The waters in these ditches were established as waters of the U.S. The design is per the Practical Alternative Report (PAR) dated November 2003.

Recommended Alternative: Wyngate Tributary: use equivalent pipe size or "Con-span"
Response: The use of Con-span will need to be verified with the Bridge Design Office and a hydraulic study will need to be done to ensure that a Con-span crossing can accommodate the required design storms. This will be studied in further detail.

Design Suggestion: Utilize surface drainage where possible (north side)
Response: This section of road being designed is an urban section which typically includes curb and gutter. Due to right-of-way constraints along this corridor the curb and gutter section should be used.

Design Suggestion: Slope pavement to median, single storm water collector.
Response: Pavement slope along the roadway is determined by the super elevation along the roadway.

Recommended Alternative: Eliminate sidewalks on side streets.
Response: Sidewalks will be eliminated along side streets where there is no existing sidewalk. This will need to be verified with the Right-of-Way office to ensure no agreements have been made with any adjacent property owners.

Recommended Alternative: Re-route non-local traffic
Response: Non-local traffic will be relocated as required during construction.

Wishon, Ron

From: Williams, Kerry [Kerry.Williams@earthtech.com]
Sent: Friday, June 01, 2007 9:38 AM
To: Wheeler, Joe
Cc: Wishon, Ron; Alexander, Nicoe
Subject: RE: VE study

Joe:
J.B. Trimble has informed me that CONSPAN would not be feasible on this project since, hydraulically, it can not pass the required design storm.

Kerry B. Williams, P.E.
Earth Tech
1455 Old Alabama Rd., Suite 170
Roswell, Ga. 30076
Direct No. (770)990-1421
Main No. (770)990-1400
Fax. (770)990-1403

From: Wheeler, Joe [mailto:Joe.Wheeler@dot.state.ga.us]
Sent: Monday, May 14, 2007 4:24 PM
To: Williams, Kerry
Subject: VE study

Kerry,

Did you ever get a response from J.B. Trimble regarding the use of Conspan as requested in the VE study?

Joe Wheeler

Georgia Department of Transportation

Office of Consultant Design

2 Capitol Square, S.W.

Atlanta, GA 30334-1002

Phone: (404)657-9759

FAX: (404)463-6136

e-mail: joe.wheeler@dot.state.ga.us

Wishon, Ron

From: Wheeler, Joe
Sent: Tuesday, March 27, 2007 2:14 PM
To: Wishon, Ron; Myers, Lisa; Alexander, Nicoe; 'Williams, Kerry'
Subject: Alternate material for noise walls

I spoke with OEL (Susan Knudson) regarding the recommendation for use of an alternate material (Leyland cypress) for a noise wall. The use of vegetation for noise abatement is not acceptable. The wall of cypress trees would have to be a minimum of 100 feet thick. There are alternate materials (steel, concrete, etc.) that could be used but vegetation is not one of them.

Joe Wheeler
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